

68173-5

12/11/2014

1/10



U.S. ENVIRONMENTAL PROTECTION AGENCY
 Office of Pesticide Programs
 Biopesticides and Pollution Prevention Division
 (7511C)
 1200 Pennsylvania Avenue NW
 Washington, DC 20460

EPA Reg. Number:
 68173-5

Date of Issuance:
DEC 11 2014

Term of Issuance: **UNCONDITIONAL**

Name of Pesticide Product:
 Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide

NOTICE OF PESTICIDE:

Registration Re-registration
 (under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):
 Kaken Pharmaceutical Co., Ltd.
 28-8, Honkomagome 2-chome,
 Bunkyo-ku, Tokyo
 Japan 113-8650

US Agent:
 Conn & Smith, Inc.
 6713 Catskill Road
 Lorton, VA 22079-1113

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Biopesticides and Pollution Prevention Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on her motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This registration does not eliminate the need for continual reassessment of the pesticide. If the EPA determines at any time that additional data are required to maintain in effect an existing registration, the Agency will require submission of such data under section 3(c)(2)(B) of FIFRA.

This product is unconditionally registered in accordance with FIFRA Sec. 3(c)(5) and is subject to the following terms:

1. Submit and/or cite all data required for registration of your product under FIFRA section 3(c)(5) and section 4 when the Agency requires all registrants of similar products to submit such data.
2. Revise the EPA Registration Number to read, "EPA Reg. No. 68173-5."
3. Submit three (3) copies of the revised final printed labeling before you release the product for shipment.

A stamped copy of the label and an A-79 Enclosure are enclosed for your records.

Signature of Approving Official:

Linda A. Hollis, Branch Chief
 Biopesticides and Pollution Prevention Division

Date:

12/11/14

2/10

GROUP --19-- FUNGICIDE

Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide

[Optional statements:]

For post-harvest use on listed fruits

Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide is a suspension concentrate fungicide of polyoxin D zinc salt for control of certain post-harvest diseases of fruits in storage

Active Ingredient	
Polyoxin D zinc salt*	5.0%
Other Ingredients	95.0%
Total	100.0%

* CAS No. 146659-78-1
Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide is a suspension concentrate fungicide.
Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide contains 7.03 ounces of active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

[1 quart, 1 gallon, and 2.5 gallon containers]:

See booklet label for additional precautionary statements and directions for use.

[266 gallon (1000 liter) container]:

See accompanying shipping documents for complete label.

Produced by:
Kaken Pharmaceutical Co., Ltd.
28-8, Honkomagome 2-chome,
Bunkyo-ku, Tokyo
JAPAN 113-8650

Correspondence may be sent to:
Kaken Pharmaceutical Co., Ltd.
c/o Conn & Smith, Inc.
6713 Catskill Road
Lorton, VA 22079-1113

EPA Reg. No. 68173-__
EPA Est. No. _____

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DEC 11 2014

NET CONTENTS: 1 Quart (32 Fluid Ounces)
1 Gallon (128 Fluid Ounces)
2.5 Gallons (320 Fluid Ounces)
266 Gallons (1000 Liters)

Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended, for
the pesticide registered under
EPA Reg. No.

[1 quart, 1 gallon, and 2.5 gallon containers]:

VIGOROUSLY SHAKE THE PRODUCT CONTAINER BEFORE MIXING.

[266 gallon (1000 liter) container]: **MIX THOROUGHLY BEFORE USE.**

68173-5

4/10

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

Do not formulate this product into other end-use products.

PRODUCT INFORMATION

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR DISEASE CONTROL.

Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide is a protective fungicide used to aid in the control of several post-harvest diseases in post-harvest treatment facilities.

For post-harvest control of Gray mold (caused by *Botrytis cinerea*), Alternaria rot (caused by *Alternaria alternata*), and Brown Rot (caused by *Monilinia fructicola*), and suppression of Rhizopus Rot (caused by *Rhizopus stolonifer*) and Sour Rot (caused by *Geotrichum candidum*) on Pome Fruit, Pomegranates, and Stone fruit.

Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide may be tank mixed or alternated with other post-harvest fungicides (e.g., Scholar[®] SC, Scholar[®] Max MP, Graduate[®] SC, Graduate[®] A+, Graduate[®] Max MP, Alumni[®], or Mertect[®] 340F) for resistance management or extended efficacy.

GROUP	19	FUNGICIDE
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Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide contains a fungicide classified in FRAC target site of action Group 19. Fungal isolates with acquired resistance to Group 19 may eventually dominate the fungal population if Group 19 fungicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide or other Group 19 Fungicides.

The following actions may prevent or delay fungicide resistance:

- Avoid consecutive use of Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide or other Group 19 fungicides against the same pathogens.
- Use tank-mixes or premixes with fungicides from different target site of action Groups. Do this only with products that are registered for the same use and are effective at the tank mix or premix rate against the target pathogen(s).
- Use fungicides as part of a comprehensive Integrated Pest Management (IPM) program.
- Monitor treated fungal populations for loss of field efficacy.

Contact your local extension specialist, certified crop advisor, and/or manufacture representative for fungicide resistance management and/or IPM recommendations for specific crops and resistant pathogens.

MIXING PROCEDURES

[For 1 quart, 1 gallon and 2.5 gallon containers:]

Vigorously shake the product container before mixing. Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Vigorous

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agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use.

[For 266 gallon (1000 liter) container:]

Thoroughly agitate product when product is in use.

To determine the physical compatibility of Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide with other products, use a jar test as described below.

JAR COMPATIBILITY TEST: Using a quart jar, add the proportionate amounts of the products to 1 qt of water or wax/oil emulsion. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

If using Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide in a tank mixture, observe all directions for use, crops/sites, use rates, dilution ratios, precautions and limitations which appear on the tank mix product label. Do not exceed label dosage rates. The most restrictive label precautions and limitations must be followed. This product must not be mixed with any product which prohibits such mixing. Tank mixtures are permitted only in those states where the tank mix partner is registered.

THE CROP SAFETY OF ALL POTENTIAL TANK MIXES INCLUDING ADDITIVES AND OTHER PESTICIDES ON ALL CROPS HAS NOT BEEN TESTED. BEFORE APPLYING ANY TANK MIXTURE, THE SAFETY TO THE TARGET CROP SHOULD BE CONFIRMED.

Add ½ of the required amount of water or wax/oil emulsion (or aqueous dilution of a wax/oil emulsion) to the spray or mixing tank. With the agitator running, open the container and add the Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide to the tank. Continue agitation while adding the remainder of the carrier. Begin application of the solution after the Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide has completely and uniformly dispersed into the mix carrier. Maintain agitation until all of the mixture has been applied.

If tank-mixing, add the desired amount of other products recommended for tank mixture after Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide has completely and uniformly dispersed into the mix carrier. Add tank mix partners in this order unless label directions or other considerations indicate otherwise: wettable powders, wettable granules (dry flowables), liquid flowables, liquids, and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product. Continue agitation to maintain a uniform suspension until all of the spray solution has been applied. Maintain agitation until all of the mixture has been applied.

To assess the potential for phytotoxicity, test tank mixtures on a small number of plants prior to more widespread application.

6/16

CROP USE DIRECTIONS

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

POME FRUIT			
Application Method	Disease	Rate (fl. oz.)	Remarks
In-line Dip, Drench or aqueous Spray	Gray Mold or Botrytis Fruit Rot (<i>Botrytis cinerea</i>) Alternaria Rot (<i>Alternaria alternata</i>)	3.5-16 fl. oz./100 gal	<ul style="list-style-type: none"> Mix 3.5-16 fl. oz. of product in 100 gallons of water carrier. Treat for approximately 15-30 seconds and allow fruit to drain. Make no more than one application. Make an application either before storage or after storage prior to shipping.
<ul style="list-style-type: none"> Pome Fruit includes - Apple (<i>Malus domestica</i>); Azarole (<i>Crataegus azarolus</i>); Crabapple (<i>Malus</i> spp.); Loquat (<i>Eriobotrya japonica</i>); Mayhaw (<i>Crataegus aestivalis</i>, <i>C. opaca</i>, and <i>C. rufula</i>); Medlar (<i>Mespilus germanica</i>); Pear (<i>Pyrus communis</i>); Pear, Asian (<i>Pyrus</i> spp.); Quince (<i>Cydonia oblonga</i>); Quince, Chinese (<i>Chaenomeles speciosa</i>); Quince, Japanese (<i>Chaenomeles japonica</i>); Tejocote (<i>Crataegus mexicana</i>) and cultivars, varieties and/or hybrids of these. 			
Recommendations <ul style="list-style-type: none"> Do not apply in a wax. If applied with wax or fruit coating on the same line, apply Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide FIRST, then apply the wax or fruit coating second in sequence. Ensure the solution remains in suspension by using agitation. If a chlorine based product (such as sodium hypochlorite) is to be used to address bacteria and organic load in the dip or drench tank, follow these steps: first replenish with the required amount of chlorinated product, then water and the appropriate volume of fungicide, and adjust the solution pH to between 5.0-7.0, and then replenish the appropriate amount of Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide. Maintain the spray solution at a pH between 5.0 and 7.0 to extend the solution half-life. Minimize exposure to Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide, spray mixture solution, and Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide treated fruit to light. 			

7/10

POMEGRANATE			
Application Method	Disease	Rate (fl. oz.)	Remarks
In-line Dip, Drench or aqueous Spray	Gray Mold or Botrytis Fruit Rot (<i>Botrytis cinerea</i>)	3.5-16 fl. oz./100 gal	<ul style="list-style-type: none">• Mix 3.5-16 fl. oz. of product in 100 gallons of water carrier.• Treat for approximately 15-30 seconds and allow fruit to drain.• Make no more than one application.• Make an application either before storage or after storage prior to shipping.
Recommendations			
<ul style="list-style-type: none">• Do not apply in a wax. If applied with wax or fruit coating on the same line, apply Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide FIRST, then apply the wax or fruit coating second in sequence.• Ensure the solution remains in suspension by using agitation.• If a chlorine based product (such as sodium hypochlorite) is to be used to address bacteria and organic load in the dip or drench tank, follow these steps: first replenish with the required amount of chlorinated product, then water and the appropriate volume of fungicide, and adjust the solution pH to between 5.0-7.0, and then replenish the appropriate amount of Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide.• Maintain the spray solution at a pH between 5.0 and 7.0 to extend the solution half-life.• Minimize exposure to Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide, spray mixture solution, and Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide treated fruit to light.			

STONE FRUIT			
Application Method	Disease	Rate (fl. oz.)	Remarks
In-line Dip, Drench or aqueous Spray	Gray Mold (<i>Botrytis cinerea</i>) Brown Rot (<i>Monilinia fructicola</i>) Suppression of Rhizopus Rot (<i>Rhizopus stolonifer</i>) and Sour Rot (<i>Geotrichum candidum</i>)	3.5-16 fl. oz./100 gal	<ul style="list-style-type: none"> Mix 3.5-16 fl. oz. of product in 100 gallons of water carrier. Treat for approximately 15-30 seconds and allow fruit to drain. For Rhizopus Rot and/or Sour Rot use highest rate. Make no more than one application. Make an application either before storage or after storage prior to shipping.
<ul style="list-style-type: none"> Stone Fruit Includes - Apricot (<i>Prunus armeniaca</i>); Apricot, Japanese (<i>Prunus mume</i>); Capulin (<i>Prunus serotina</i>); Cherry, black (<i>Prunus serotina</i>); Cherry, Nanking (<i>Prunus tomentosa</i>); Cherry, sweet (<i>Prunus avium</i>); Cherry, tart (<i>Prunus cerasus</i>); Jujube, Chinese (<i>Ziziphus jujuba</i>); Nectarine (<i>Prunus persica</i>); Peach (<i>Prunus persica</i>); Plum (<i>Prunus domestica</i>); Plum, American (<i>Prunus americana</i>); Plum, beach (<i>Prunus maritima</i>); Plum, Canada (<i>Prunus nigra</i>); Plum, cherry (<i>Prunus cerasifera</i>); Plum, Chickasaw (<i>Prunus angustifolia</i>); Plum, Damson (<i>Prunus domestica</i>); Plum, Japanese (<i>Prunus salicina</i>); Plum, Klamath (<i>Prunus subcordata</i>); Plum, prune (<i>Prunus domestica</i>); Plumcot (<i>Prunus hybr.</i>); Sloe (<i>Prunus spinosa</i>); Cultivars, varieties, and/or hybrids of these. 			
Recommendations <ul style="list-style-type: none"> Do not apply in a wax. If applied with wax or fruit coating on the same line, apply Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide FIRST, then apply the wax or fruit coating second in sequence. Ensure the solution remains in suspension by using agitation. Maintain the spray solution at a pH between 5.0 and 7.0 to extend the solution half-life. Minimize exposure to Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide, spray mixture solution, and Polyoxin D Zinc Salt 5SC Post-Harvest Fungicide treated fruit to light. 			

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in original container only. Keep container closed when not on use. Store in dry place away from food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes.

PESTICIDE DISPOSAL: Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

[containers up to and including 5 gallons]:

Nonrefillable container. Do not reuse or refill this container. Completely empty container into application equipment. Triple rinse (or equivalent). Then offer for recycling or reconditioning (if available), or puncture and dispose of in a sanitary landfill or by incineration, if allowed by State and local authorities. If burned, stay out of smoke.

[containers larger than 5 gallons]:

Nonrefillable container. Do not reuse or refill this container. Completely empty container into application equipment. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two or more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer for recycling or reconditioning (if available), or puncture and dispose of in a sanitary landfill or by incineration, if allowed by State and local authorities. If burned, stay out of smoke.

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

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10/10

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE. Read the entire direction for Use And Conditions of Sale and limitations of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials, or other influencing factors in the use of the product which are beyond the control of Kaken Pharmaceutical Co., Ltd. (KAKEN) or Seller. To the extent permitted by applicable law, Buyer and User agree to hold KAKEN and Seller harmless for any claims relating to such factors.

KAKEN warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law, (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or KAKEN, and, (2) Buyer and User assume the risk of any such use **TO THE EXTENT PERMITTED BY APPLICABLE LAW. KAKEN MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall KAKEN be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF KAKEN AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF KAKEN OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

KAKEN and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of KAKEN.